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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,536	07/18/2000	Gregory S. Bayley	TRW(AP)4566	8672

7590

11/25/2002

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EXAMINER

ILAN, RUTH

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

2, 5, 7, 8, 11, 13, 21, 22

Office Action Summary

Application No.

09/618,536

Applicant(s)

BAYLEY ET AL.

Examiner

Ruth Ilan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the Examiner assumes that the scope of the intended invention is that for a give air bag thickness, the air bag should be designed so that upon inflation it will have a specific predetermined pressure. However, the scope of the claim is unclear because a system like an air bag is not at equilibrium, and there is insufficient definition to understand what is intended by "predetermined pressure." At what time after inflation is initiated should the pressure be considered? Additionally, based on the disclosure, it appears that the limitation in the claim that is "said predetermined pressure being determined as a function of said predetermined thickness..." is really directed to a method of designing an air bag of a given thickness, and as such the claim is in a sense a hybrid claim directed to a method of designing an air bag, and not the apparatus itself. For the purposes of examination, and based on Applicant's arguments of paper No. 6, which are addressed below, it will be assumed that the apparatus is being claimed.

Claim Rejections - 35 USC § 103

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3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry (US 6,022,044) in view of Bohman et al. (Paper no. 98-S8-O-07, 16th ESV Conference June 1-4, 1998 Windsor Canada) Cherry is an inflatable vehicle occupant protection device that meets the structural limitations as recited in these claims. Cherry additionally discloses that the intended purpose of the air bag is to protect an occupant in the event of a side impact or rollover event. Cherry is silent as to the specific thickness/pressure/head velocity relationship. Bohman et al. teaches that it is known in the art to inflate an air bag of the type disclosed by Cherry to a predetermined thickness (70mm) and a predetermined pressure (1.5 bar) which is sufficient to prevent the head of an occupant traveling at a predetermined velocity (7 m/s) from striking the side structure through the air bag (bottoming out, as taught in examiner numbered page 6, 1st col. Lines 1-5.) Please note that the limitation "said predetermined pressure being determined as a function of said predetermined thickness" in line 23 of claim 1 has been given little patentable weight, since the claims are apparatus claims and are not directed to the method of supplying or determining the pressure or design. Additionally, the Examiner notes that the pressure and thickness of Bohman et al., when applied to Cherry are predetermined. That is Bohman et al. teaches that such predetermined criteria are useful when avoiding bottoming out or strikethrough of the air bag. It would have been obvious to one having ordinary skill in the art at the time of the invention to inflate the air bag of Cherry to the thickness and pressure of Bohman et al. in order to

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avoid bottoming out, as taught by Bohman et al. and to provide a safe side air bag device.

Allowable Subject Matter

5. Claims 2-12 and 21 and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to the 112 1st paragraph issues have been considered and are persuasive.

7. Applicant's arguments with regard to the prior art rejections are moot in view of the new grounds of rejection.

8. Applicant's arguments with regard to the 112 2nd paragraph issues have been considered but they are only partially persuasive. It is not clear if the Applicant is claiming a particular relationship between pressure and thickness, or if the Applicant is intending that "being determined as a function of the predetermined thickness" is intended to have patentable weight.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Examiner cites the following technical papers as of interest: "Development of MADYMO Models of Passenger vehicles for Simulating Side Impact

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Crashes" Deshpande, et al.; "Evaluating Human Risk in Side Impact Collisions with Roadside Objects" Ray et al. ; "The Inflatable Curtain (IC) –A new Head Protection System in Side Impacts" Ohlund et al. (see PTO 892 for complete citations.)

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 703-306-5956. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Ruth Ilan
Examiner
Art Unit 3616

RI
November 18, 2002

Ruth Ilan
11/18/02

Paul N. Dickson 11/18/02
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600